

**Institution: Hartpury University****1. Context and mission**

Hartpury University is taking part in its first Research Excellence Framework (REF) with a single submission, having transferred to the Higher Education (HE) sector and attained University status in September 2018. While our foundation in scholarship prior to 2018 provided a base on which to build, a significant proportion of Research and Knowledge Exchange (RKE) activities that underpin this REF submission result from activity post-2018, as we entered the HE sector. We recognise that as a relatively small, specialist and new University, we are early in our research excellence journey.

Hartpury's mission is to be a specialist, niche provider delivering relevant, effective and high quality education, training for employment and applied research in the animal, agriculture, equine and sport industries locally, regionally, nationally and internationally. Hartpury has delivered higher education for over 25 years alongside its FE provision, which is now encapsulated within the subsidiary company, Hartpury College. When using the term Hartpury, we are referring to the whole organisation (both University and College).

Hartpury comprises a university, a college, and areas of commercial activity including outstanding sports facilities, human performance laboratories, the Rider Performance Centre, an international equestrian centre, and canine and equine therapy and rehabilitation centres. There are approximately 4,000 students (~50% study at the University) and it is amongst the world's largest providers of equestrian education. Our integrated and self-contained campus includes animal collections, a working farm and Agri-tech centre, all set within a 360 hectare rural estate on the outskirts of Gloucester. As a specialist institution, we have strong links with the business sectors and professional bodies relevant to our areas of expertise and education, both locally and more broadly. We also have close links with GFirst LEP, the local enterprise partnership for Gloucestershire and our Vice-Chancellor is a Board member. We are members of GuildHE and GuildHE Research (the research consortium for smaller and specialist higher education institutions) and Landex (the organisation for colleges and universities operating in land-based occupational subjects).

In December 2018, we established new structures and career pathways to support staff with responsibility for undertaking research. As of 31<sup>st</sup> of May 2020, we had 88 academic staff, all contracted to engage with scholarly activity, with 9 (10%) having specific responsibility for research. Through recruitment of new staff and an annual progression opportunity to apply for contractual research responsibilities, we will elevate this percentage ensuring alignment to our research centres and excellence in the research produced. Our research degrees are awarded in partnership with the University of the West of England (agreed 2017). We aspire to excellence in all research areas and have a long-term goal of applying for RDAP by 2030. We have a strong record of knowledge exchange activity and achieved the HEIF threshold in our first year as a university, following our initial HE-BCI survey return.

The University's research and impact activity draws on the combined infrastructure, people and partners deriving from all aspects of Hartpury's activities across many years. Our research is highly applied, with multiple routes into practice, and we undertake research at a scale unachievable in most other locations, for example, having access to over 1,000 sportsmen and women, more than 230 horses and 250 cattle on site. This capacity has enabled projects evaluating fatigue in female athletes, dairy cattle health, rider performance, and the application of equine therapy and rehabilitation in sports horses.

In the context of RKE, Hartpury aims to:

- Contribute to new knowledge and transfer it into practice, at national and international

levels;

- Support the sharing of best practice and research in the animal, agriculture, equine, and sports industries; and;
- Contribute to economic and community development within our region.

## **2. Research and Impact Strategy**

### **2.1 Strategic development**

The University's research and impact strategy builds upon Hartpury's 25-year record of applied activity in its areas of specialism. At the core of the strategy is the aim to establish a vibrant and dynamic culture of RKE that fosters excellence, cooperation and impact.

The achievement of University status has facilitated a planned evolution during this REF period. As part of the ongoing development of our research approach, areas of activity have been grouped in order to benefit from collaboration, multi-disciplinarity and scale. We have evolved a focused approach to scholarship that supports high quality RKE that purposefully aligns investments to our niche area strengths. Building on a solid foundation of scholarship (HER, 2014), the University (then College) created four RKE Arenas in 2017 to co-ordinate RKE in cognate areas of:

- Animal welfare;
- Equestrian performance;
- Pedagogy, practice and community;
- Sport, exercise and wellbeing.

We reviewed the performance and progress of these in 2019 and collectively decided to evolve the Arenas into three Research Centres, coupled to a range of Communities of Practice (CoP) with the explicit aim of creating linkages between our research and other institutional communities and activities. The CoP effectively replace the conversational and translational mechanisms of the Pedagogy, Practice and Community Arena, so that such conversations are embedded across all of the Research Centres. They are accessible to staff, students and invited external partners, providing a supportive forum to develop ideas and build research expertise and confidence, and propagate engagement and partnerships in scholarly activity. The three Research Centres, details of which are provided in the Unit Environment Statement (ULES, Section 1.1), are:

- Sport and Exercise;
- Equestrian Performance;
- Animal and Agriculture.

Underpinned by previous investment in staff and facilities, we recognise our Sport and Exercise and Equestrian Performance Centres are more established than Animal and Agriculture. We are developing our RKE capability in agriculture and agri-tech activity, including current infrastructure investment of £2 million (Section 4) to support our planned direction of travel. We are currently using out HEIF income strategically to continue to support our areas of strength in practice, as well as promoting further knowledge exchange partnerships and innovation within agriculture. Although not directly supporting research, this will provide expertise, opportunities and impact in these areas. In a REF context, we anticipate increasing our scope to include Unit 6, Agriculture, Food and Veterinary Sciences in the next exercise.

### **2.2 Achievement of strategic goals**

At a practical level, we have achieved our strategic goals for this period:

- Creation, review and evolution of research groupings;

- Establishment of organisational and career structures consistent with a university environment and REF submission;
- Increase in PhD supervision capacity, along with clarity of status and a physical base for research students;
- Sharing of best practice and celebrating excellence through the annual Hartpury Research Conference and Research Centre events;
- Establishment of support structures, including leadership, research management, and open access infrastructure coupled to partner and external engagement.

The University's current RKE strategic goals are to:

- Increase the quality of research across Research Centres and ensure research has real world impact;
- Develop an inclusive RKE culture that develops and retains talent, benefitting all of Hartpury;
- Be outward looking and build RKE partnerships with industry and the community;
- Increase income from RKE in a sustainable manner;
- Ensure that research and evidence-informed practice is adopted across all parts of the organisation through effective internal knowledge exchange.

These goals reflect our continuing development and capacity building, including the expansion of equine, agri-tech and animal resources and facilities.

Core actions in supporting these goals are:

- Annually funding doctoral studentships (one per Research Centre);
- Fostering Communities of Practice that are inclusive across and beyond the organisation, and providing opportunities to develop Early Career Researchers (ECR);
- Providing structured CPD opportunities that support progression for all staff, in particular ECRs and those new to doctoral supervision;
- Developing resources to enable animal and agricultural RKE to excel including building an Animal Science Centre and Digital Innovation Farm;
- Investment in infrastructure and partnerships that support commercial research, public engagement and knowledge transfer.

### **2.3 Practitioner, business and societal engagement**

The University and wider institution have strong links with practitioners, businesses and relevant professional bodies at local (e.g. Cheltenham Town FC and Active Gloucestershire), national (e.g. the British Equestrian Federation and Guide Dogs), and international levels (e.g. International Equestrian Federation (FEI) and Swimming Australia: Paralympic swim team) (ULES, Section 1.1, 1.3).

Hartpury is committed to public engagement of our research activity; we achieve this through involving, interacting with and listening to industry and community partners within our applied research projects, combined with a strong commitment to translate our findings back to the public to generate mutual benefit. For example, the University's Equine Department supports the equine industry at local, national and international levels through the work undertaken within the Rider Performance Centre and Equine Therapy Centre (ULES, Section 3.1). We also provide a base for our local Riding for the Disabled Association branch, who regularly use our facilities and are working with us to evaluate the impact of equine-assisted activities on human wellbeing.

The University also engages with 2,000 local businesses in RKE. For example, we work with Glideology, a local SME developing sensor technology for use in athletes and equine sport. We are committed to working with local schools focused around showcasing the benefits of physical activity to enhance wellbeing. HARTLINX is a RKE network between the University and schools researching children's physical activity; seven hundred children participated in this project in the last year. Hartpury also supports many external public engagement events; the Hartpury Science Hub is a regular fixture at the Cheltenham Science Festival. Approximately 6,500 school children visit the festival and this event provides an interactive hub where we engage in public communication, showcasing our research and communicating ideas and science from across all of our specialisms.

As we build these relationships and develop resources, we are also progressively expanding our knowledge exchange and practice-based research coupled to professional practice development. The effects of these economic and society interactions include: developing evidence-informed training regimes and performance analysis with Gloucester Rugby, across canine sport with the Kennel Club, and advancing management, training and rehabilitation of sport horses working with the Animal Health Trust and the Association of Chartered Physiotherapists in Animal Therapy (ULES, Section 1.1, 3).

## **2.4 Creation of the institutional research environment and culture**

Our research is undertaken in an environment with high standards of research integrity and governance. We seek to operate an open research environment that enables access to, and sharing and replication of our research.

As a new University, we had no strongly embedded research structures or practices. Consequently, we have been able to create our own unique research environment and culture, and this continues to evolve. Much of our research is cross-disciplinary as well as being applied, so there is a natural culture of collaboration across boundaries. Whilst seeking excellence and applicability in what we do, we are also conscious of the need to enable and encourage good practice in research, as embodied in our Code of Research Practice. The Code covers topics such as professional standards, research with human participants and animals, data management, and conflicts of interest, and underpins our embedded approach to research integrity and governance. We seek to ensure that our research vision, strategy, operational plans, resource deployment and performance monitoring all take account of our commitment to research integrity and do not introduce inappropriate or perverse incentives.

The University has actively engaged with arrangements to enable open access to its research, including the establishment of our repository for research outputs, data and other relevant materials. Rather than constrain the repository to a narrow focus of scholarly outputs, we have chosen to make it a doorway into the range of expertise, activities, outputs and content of the whole of Hartpury, thus supporting the engagement of the full range of potential internal and external interests. We have introduced a requirement that all research (for staff and postgraduate students) should have a formal data management plan linking to their project proposals and ethics applications, as appropriate.

Organisationally, the Dean of RKE has lead responsibility for RKE at the University, supported by the RKE Committee, and is responsible to the Pro Vice-Chancellor for Hartpury University, and thence to the Vice-Chancellor.

## **3. People**

### **3.1 Staffing Strategy**

Hartpury recruits, develops and retains high quality staff with appropriate skills, aptitudes and values aligned to our own. The achievement of University status has facilitated a greater focus on the skills and competencies we needed to deliver excellent applied RKE, alongside delivering

research informed curricula. This led to the creation of a new career structure for teaching and research in January 2019.

The introduction of the new structures allowed us to identify staff with research track records and / or ambitions, providing them with career advancement and active support. All staff with responsibility for research are allocated designated time; this is negotiated with individuals based on their annual research targets. During the REF period, we have targeted our recruitment on employing experienced international researchers in order to lead and build capacity in each research centre. These include Professors in Sport and Exercise Sciences, and Human Animal Interaction. We have also appointed world-leading scientists as Visiting Professors (VPs) within each Research Centre to advise on the strategic direction of research, and to mentor our staff and doctoral students (ULES: Section 2.1). Since we had no staff with significant responsibility for research in 2014, there has been a substantial investment in people and research capacity within this REF cycle.

Our policies and structures creating a vibrant and productive working environment include:

- A strong wellbeing agenda;
- Flexible and remote-working policies that support personal needs;
- Staff development and training (generic and in technical specialisms);
- Sabbaticals, in flexible quanta;
- Conference support to enable development, professional networking (academic and practitioner), and reputation building;
- A policy to pay full fees for staff completing research degrees.

The University's sabbatical scheme has been key to facilitating progression onto the teaching and research pathway, providing staff with capacity to expand their research portfolio and the confidence to apply for research positions within the University. For example, colleagues have utilised sabbatical allocations to complete doctorates, build external research partnerships that have led to publications, create successful funding bids and undertake broader media dissemination of work, and move towards having significant responsibility for research.

We are committed to developing all of our researchers throughout their career, supporting undergraduate research, postgraduate research students, postdoctoral researchers, and early career and established academic staff. We are implementing the revised Concordat to Support the Career Development of Researchers and are working towards the HR Excellence in Research Award (or its equivalent successor).

### **3.2 Early Career Researchers**

As a newly formed university, all of our Category A staff would be classified as Early Career Researchers within a REF definition; in reality we have a mixture of both experienced and inexperienced researchers across our staff base. We are particularly conscious about how to support ECRs appropriately, whilst not overburdening our more established staff. We use mechanisms of peer support for early-stage publishing, mentoring, managed workloads, CPD, sabbaticals, conference attendance, staff mobilities, and access to research support from VPs to support staff development and progression.

We are in the process of creating Hartpury University Press to enable all of our researchers to publish; this will support staff and students towards first publications, provide a publication vehicle in areas where existing publication channels are scarce, and will enable dissemination of our specialist areas of RKE to support practical application within industry and by the general public. We provide opportunities for ECRs, other staff, and students to present and disseminate their research findings on-site including at the Hartpury-Alltech Equine Performance Conference, the Hartpury Research Conference, the Hartpury Teaching and Learning Conference and regular



Research Centre seminars.

### 3.3 Research Students

The number of postgraduate research (PGR) students has grown substantially from 1 in 2017-2018, to 7 in 2018-2019, to 19 in 2019-2020. We had our first completion in 2020 and are expecting three more in 2021, reflecting the development of our research and supervision capability.

The University has supported research students by investing in their physical environment with a dedicated PGR office and prioritised their inclusion in the wider research community at Hartpury. Hartpury's Achievement and Success Centre provides individualised and workshop support for academic and personal development. Our Innovation, Careers and Enterprise Centre provides career and enterprise support including the opportunity to bid for an annual Innovation Award alongside funding and business mentoring, to translate their research into a viable business post-graduation. We also provide access to a range of resources for PGR students to support their research and personal development, including access to internal and external PGR skills development programmes, doctoral summer schools, Guild HE researchers' network, funding to support individualised external CPD and events, and volunteering within Hartpury's commercial centres and sporting events.

### 3.4 Equality, Diversity & Inclusion

Hartpury has strong principles and enabling policies with respect to equality, diversity and inclusion (EDI). The current policy, which applies across the whole organisation, originates from 2005, with regular updates and approval by the Corporation, as the ultimate governing body.

To quote from the EDI policy: *"At Hartpury we are committed to valuing diversity and promoting equality. One of our Corporate Values is promoting respect for all and this means we create an inclusive and accessible environment that enables and promotes belonging and respect for staff, students and the wider community. We create an inclusive approach for both students and staff that promotes diversity, positive behaviours, builds effective relationships and enables all our students to develop and achieve the best possible outcomes. We value others for their contribution, irrespective of personal differences."*

Hartpury's approach is to go further than legal compliance, embedding a culture of EDI across all our work. We commit to the principle of EDI for all by creating an inclusive environment where differences are celebrated and everyone is valued and respected. We actively monitor EDI through a termly EDI Forum and a biannual EDI Report presented to the Corporation. The Forum views all EDI action plans and relevant statistics at each meeting. The policy is reviewed annually by the Vice-Principal Resources, with any changes agreed by the EDI Forum before approval by the Corporation.

Over recent years, Hartpury has enhanced its approach to EDI by:

- Promoting EDI initiatives across campus, celebrating and recognising events, including the annual EDI celebration week;
- Conducting bi-annual staff surveys to gain a better understanding of what it is to work at Hartpury, and identify areas for improvement;
- Taking the Time to Change pledge, achieving Equality Gold Standard re-accreditation, and renewal of Disability Confident and Mindful Employer charters;
- Conducting annual equal pay audits (Hartpury has higher median pay for women than men).

All staff and PGR students are required to undertake safeguarding and EDI training, to support and protect them, and those they will interact with, in their future research. We are also increasing our internal and external presence in EDI committees, including on the BASES EDI Committee, as well

as coordinating internal opportunities such as 'Diversity Dates' to highlight positive role models in sport and exercise research and lecturing roles to staff and students.

#### 4. Income, infrastructure and facilities

Hartpury has considerably developed its research infrastructure and facilities leading up to and since achieving University title. Therefore, whilst Hartpury is probably the newest University entering REF, it already has a research repository, research staff including professors, a strong cohort of PGR students, and resources and processes to support research income generation.

The University has key infrastructure and facilities (Section 1) that support our research. The development of our research income profile is at an early stage, consistent with our organisational development. Substantial amounts of research funding were not available as an FE College. Despite this disadvantage, we have engaged with academic and industry partners to undertake contract research; for example, with the Society of Master Saddlers. Alongside this, we have a strong record of knowledge exchange income relative to our size that reflects our applied expertise. Whilst not included in REF4b, this typically translates to £2.5 million HE-BCI income per year, and generates HEIF as a consequence.

Our key facilities, aligned to our Research Centres, include:

- **Equestrian Performance:** world-leading Rider Performance Centre incorporating eventing and racing horse simulators, commercial Equine Therapy Centre (with resident veterinary practice), and ~250 riders and their horses on-site; representing competitive and recreational equine populations.

These facilities underpin our research in riders and sport and racehorse performance (ULES, Section 1.3).

- **Sport and Exercise:** sport biomechanics and human performance laboratories, including an altitude chamber and motion capture technology.

These support research investigating training adaptation in female and veteran athletes, and cardiorespiratory physiology (ULES, Section 1.3).

- **Animal and Agriculture:** extensive animal collection, canine hydrotherapy centre, canine agility arena, a working farm, and an agri-tech centre.

These support research in canine biomechanics and the planned establishment of the Digital Innovation Farm.

The University has also invested in organisational infrastructure to support RKE, including in leadership, management and administrative capacity (3 FTE administrative and 9.6 FTE Research and Teaching staff), six Visiting Professors, and information sources (IDOX) and systems (Pure).

The expansion of our VP scheme has been influential in increasing our RKE activities. The VPs have been actively involved in research CPD, delivering sessions for staff and PGR students, as well as being used to support targeted research activities. For example, Professor Adam Hart (University of Gloucester) has supported staff development sessions and individual staff members to enhance their confidence in engaging in science communication. As a result, we have expanded this aspect of public engagement running a webinar series for equine students, researchers and industry, presenting at industry events, e.g. Horses Inside Out, and increasing engagement with lay press and social media. Professor Steve Williams (King's College London) has worked with colleagues within the drumming project (ULES, Section 1.3) and proved invaluable as a mentor for senior teaching and research staff.

Whilst numbers of Category A staff are modest, to support our growth in staff engagement in RKE, we have created a structure where research is accessible to all staff, through Communities of

Practice. These are a key component for our research aspirations to be successful; they provide an interface between research, curriculum and broader industry partners, where like-minded individuals across the institution and industry can come together to co-create applied research that influences real-world practice. The CoP provide a supportive environment to grow staff experience in RKE, while also facilitating access to RKE across the institution (University and College) and within local and industry communities. These are as diverse as developing science communication, promotion of physical activity to enhance health and welfare within children and adolescents, and the EDI community, committing to increasing awareness of EDI initiatives and engagement in EDI-related research, within and outside of Hartpury.

An important part of the supporting infrastructure has been our annual Research Conference. This provides a venue for staff, students and alumni from across the Hartpury community to come together with external partners to hear about and discuss the institution's research and impact. Starting in 2016 as an internal exercise to offer students the opportunity to experience a scientific conference as a presenting author or delegate, it now involves 12-15 colleges and universities across the UK and overseas, along with a wide range of our business and industry partners.

Extensive campus developments are scheduled for the next 10 years. These include developing a bespoke equine assisted-activities centre, an animal science and research centre, expansion of our laboratory facilities, expansion of the Digital Innovation Farm to create a National Centre for Agricultural Data Management, and sports academy; culminating in the aspiration to have a dedicated National Institute for Equestrian Research on site by 2030. The planned developments will strengthen further the facilities and access to populations and state-of-the-art equipment to underpin our aspirations to enter a second unit of assessment (Unit 6) in the next REF.

In summary, Hartpury University is a new University that has already established a research culture and infrastructure, with an emphasis on applied research in its specialisms. The University has invested in outstanding facilities to support research in Sport and Exercise (including equestrian sport) and is further investing and developing its facilities and research portfolio in animal and agriculture. The campus plans to support our growth in student numbers will also deliver the investment and infrastructure to support research excellence in all of Hartpury's specialisms.